Pressure transmitter PASCAL Ci4

for diaphragm seal operation,Type series CI4120

Application area

- General process engineering
- Chemical and petrochemical industry
- General process technology

Features

- Pressure transmitter with diaphragm seal technology for the measuring of relative and absolute pressures of gases, vapors and liquids
- Stainless steel case in sturdy design, degree of protection IP 65/67
- Accuracy 0.1 %
- High-resolution graphic display with Intuitive 4-button operation and backlight
- Comprehensive parameterising functions
- Comprehensive simulation and diagnostic functions
- Quick access to device data
- Development according to SIL2
- Nominal range 0,25 bar to 400 bar
- Turndown up to 100:1
- Measuring rate up to 100 Hz
- Output signal 4…20 mA with HART® protocol
- Configuration memory
- Digital communication via PDM, FDT/DTM, 375/475 Field Communicator
- Output functions: linear, invers, square root, table function with up to 64 support points
- Media temperature -40…400 °C
- Case design:
  - process connection bottom
  - process connection back
- Various process connections
- Approved according to NAMUR 95
- EAC declaration (upon request)

Options

- Approvals/Certificates
  - Explosion protection for gases and dust
  - Classification per SIL2
  - Certificate of measuring equipment for Russian Federation
  - Material certificate per EN 10204
  - Calibration certificate per EN 10204
- Active temperature compensation (ATC technology) upon request
- Removable display and control unit
- Degree of protection IP 69K

Application

The digital pressure transmitter PASCAL Ci4 is suitable for measuring the relative and absolute pressure of gases, vapors and liquids. In combination with diaphragm seal technology the transmitter is applicable for pressure measurement with aggressive, highly viscous, solidifying or crystallising media.

Nominal range

See order details, further ranges upon request

Overload protection: 1.5times

Accuracy

Accuracy class: 0.6 per EN 837-1

Temperature influence: Temperature error (diaphragm seal system)

Screw- in thread G1/2 A	6 mbar / 10 K
Screw-in thread G3/4 A	4 mbar / 10 K
TriClamp 3/4“	8 mbar / 10 K
TriClamp 1“	6 mbar / 10 K
Clamp ISO 2852 1“	6 mbar / 10 K
Clamp DIN 32676 DN 25	6 mbar / 10 K
Neumo BioControl Gr. 25	3 mbar / 10 K

A detailed calculation of accuracy can be submitted upon request.

Temperature ranges

Ambient: 10…50°C

Media: 10…140°C

Storage: -40…70°C

The maximum values can be restricted by the following parameters:

- Diaphragm size
- Measuring range
- Pressure transmission fluid

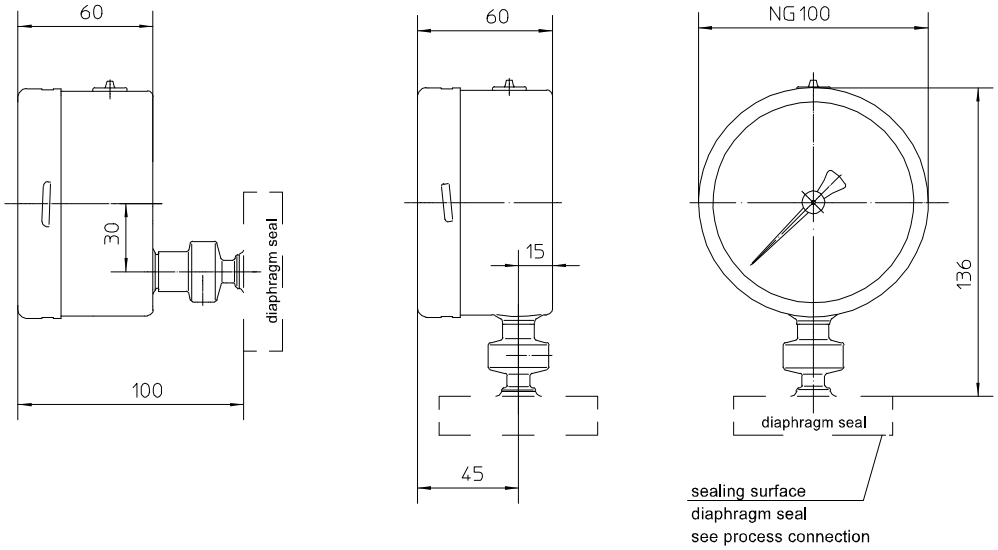
Extended temperature range upon request.

Tests and certificates

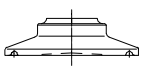
- EAC declaration (upon request)
- Certificate of measuring equipment for Russian Federation

Information on other models see order details or upon request.

Dimensions



process connection
diaphragm seal

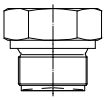


clamp connection

data sheet D5-026

Neumo BioControl Gr.25

data sheet D5-024-2



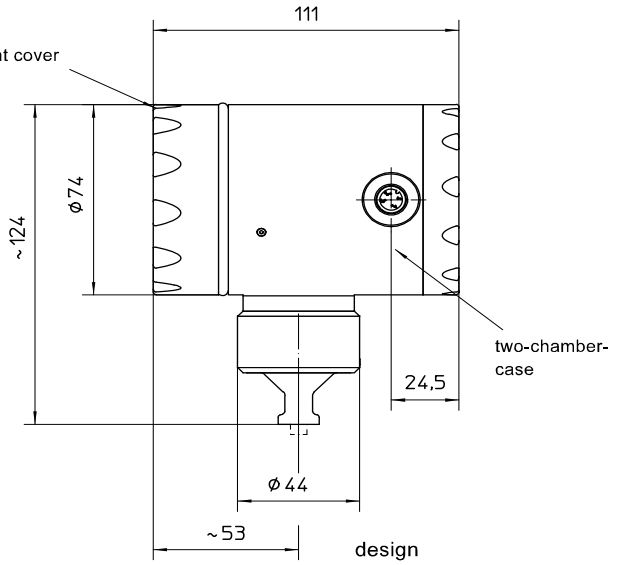
connection per DIN 3852

data sheet D5-032

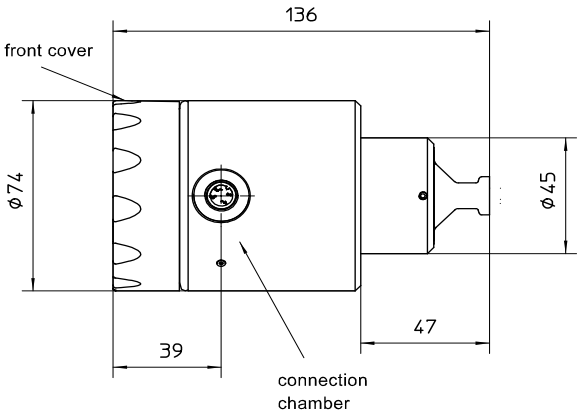
Dimensions

Case

case

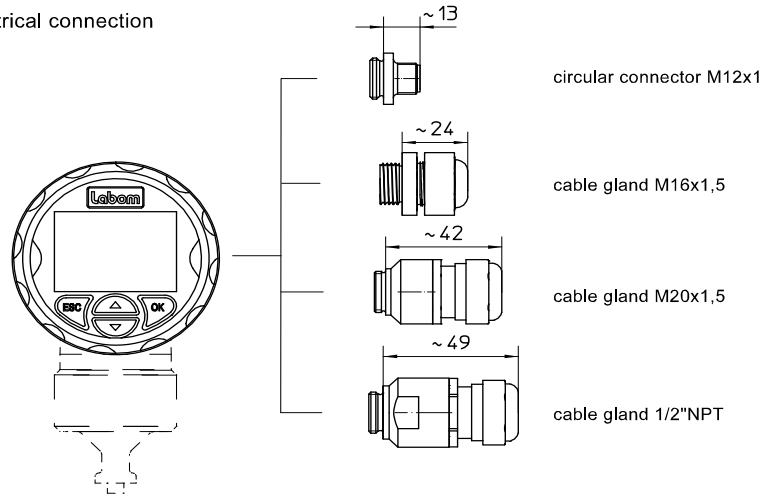


design
bottom connection



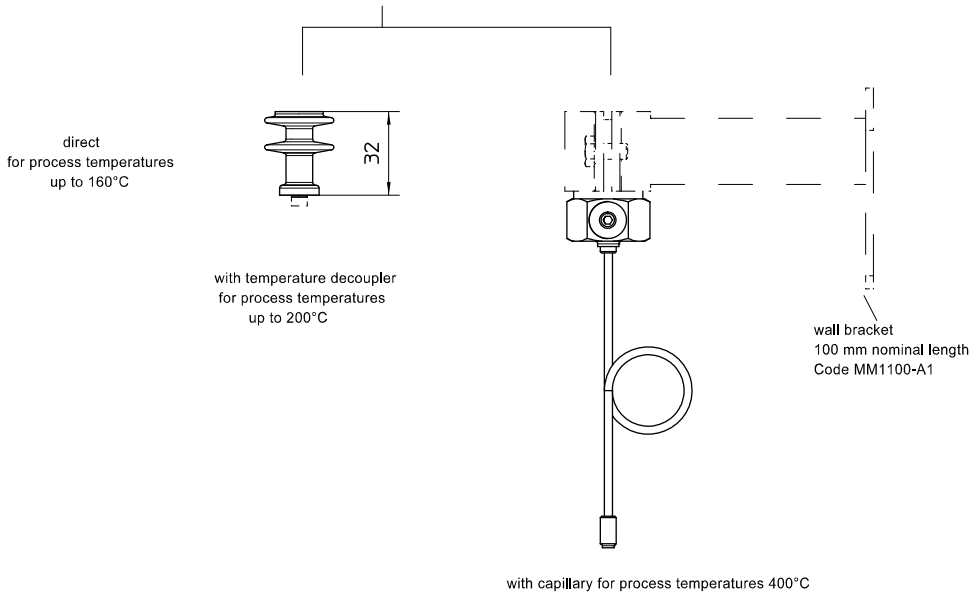
design
back connection

Electrical connection



All dimensions are in mm

Connection

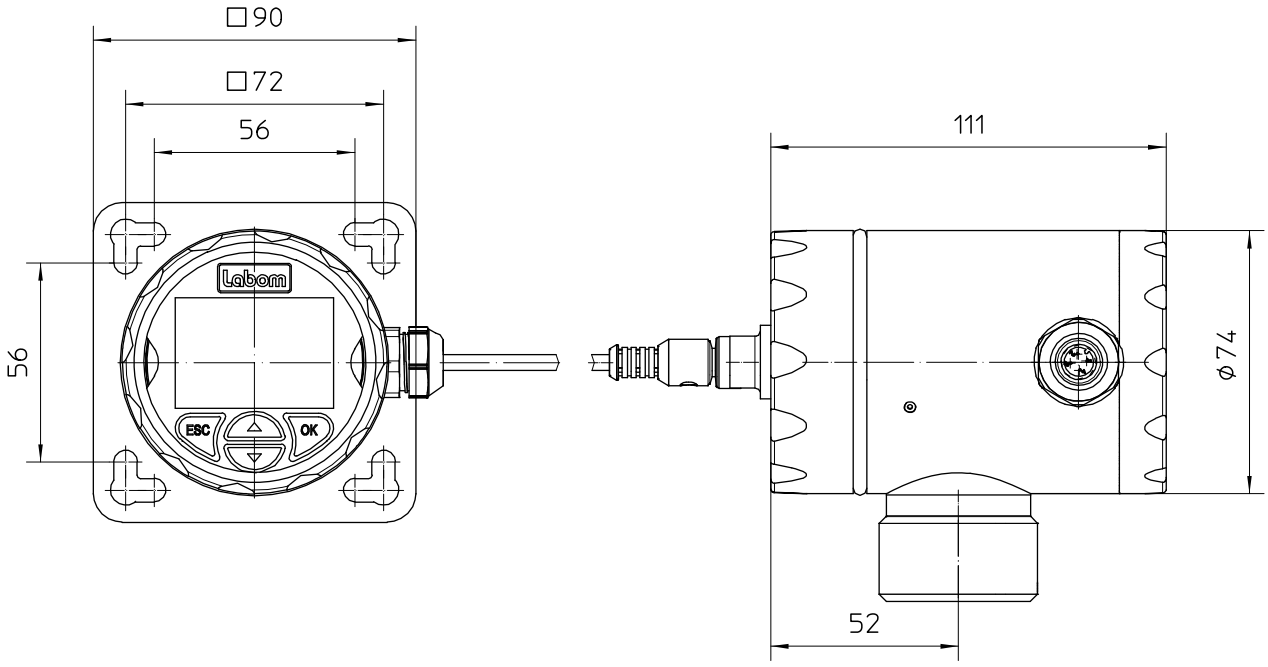


All dimensions are in mm

Process connections

Details see data sheets of diaphragm seals, product group D5.

Remote display and control unit (Type series MC1140)



All dimensions are in mm

Order details

Pressure transmitter PASCAL Ci4 for diaphragm seal
Type series CI4120

Order details pressure transmitter PASCAL CI412. for diaphragm seal				
CI4120	process connection bottom			
CI4123	process connection back			
	nominal range	turndown	overload limit [bar]	sensor type
A1078	-0.25...0.25 bar rel.	TD up to 100:1	1	piezoresistive
A1053	0...1 bar rel.		3	
A1056	0...4 bar rel.		10	
A1059	0...16 bar rel.		60	
A1061	0...40 bar rel.		100	
A1053.1	-1...1 bar rel.		20	
A1056.1	-1...4 bar rel.		50	
A1059.1	-1...16 bar rel.		60	
A1061.1	-1...40 bar rel.		150	
A3063	-1...100 bar rel.		200	thin film
A3066	-1...400 bar rel.		750	
B1053	0...1 bar abs.		3	piezoresistive
B1056	0...4 bar abs.		10	
B1059	0...16 bar abs.		60	
F1	parameterisation	factory settings (standard)		
F2		as per customer's specification (pls. specify)		
H21	output signal	4…20 mA, with HART-Protokoll		
Y1.	material case	stainless steel mat.-no. 1.4301 (304)		
Y2.		stainless steel mat.-no. 1.4404 (316)		
1	material front cover	polypropylene (black), window Macrolon		
2		stainless steel, window non-splintering glass		
3		stainless steel, closed, without window		
			default language	available language
	display	High-resolution graphic display with backlight, intuitive 4-button operation, quick access to device data	German (standard)	English, German
M21.1			English	
M22.1			English	English, Chinese
M22.2			Chinese	
M23.1			English	English, Spanish, French
M23.2			Spanish	
M23.3			French	
M25.1			English	English, Polish, German
M25.2			Polish	
M25.3			German	
M26.1			English	English, Turkish, German
M26.2			Turkish	
M26.3			German	
M1		without display		
T20.	electrical connection	cable gland	M16 x 1.5 polyamide, for cable Ø 4.5-10 mm	
T22.			M16 x 1.5 stainless steel, for cable Ø 5-9.5 mm	
T15.			M20 x 1.5 polyamide, for cable Ø 7-13 mm	
T17.			M20 x 1.5 stainless steel, for cable Ø 8-13 mm	
T27.			1/2" NPT polyamide, for cable Ø 6-12 mm	
0		cable clamps	spring clamp terminals up to 1.5 mm^2	
5			pole terminals 2.5 mm^2	
6			screw terminals 2.5 mm^2	
T30		circular connector M12 x 1 (4 pin)		
K1085	design	for diaphragm seal		
Process connections (diphragm seal) see product group D5				

Additional features (to be indicated if required)			
S66	Ex marking [1,2]	ATEX	Ⓔx II 1/2G, II 2G Ex ia IIC TX Ga/Gb, Gb
			Ⓔx II 1/2D, II 2D Ex ia IIIC Txx°C Da/Db, Db
S76		IECEx	Ex ia IIC TX Ga/Gb, Gb
			Ex ia IIIC Txx°C Da/Db, Db
S62	Ex marking [1,3]	ATEX	Ⓔx II 1/2G, II 2G Ex ia IIC TX Ga/Gb, Gb
			Ⓔx II 1/2D, II 2D Ex ia IIIC Txx°C Da/Db, Db
S77		IECEx	Ex ia IIC TX Ga/Gb, Gb
			Ex ia IIIC Txx°C Da/Db, Db
X1	vacuum application	negative pressure service	temperature limits see TA_038 Pressure Transmission Fluids
X2		vacuum service	
T4	degree of protection	IP 69K [1]	
W1020	material certificate	per DIN EN 10204-3.1, wetted parts	
W1201	calibration certificate	per DIN EN 10204-3.1, 5 measuring points	
W2602	functional safety per EN 61508, classification per SIL2		
W2673	certificate of measuring equipment for Russian Federation		

Accessories		
MC1140	PASCAL Ci4 remote display and control unit including device holder	
	material stainless steel, incl. front ring with seal and blind cap with circular connector M12x1	
A1.	connection cable	length: 10 m, material: PUR, with connector M12 x1 (further lengths upon request)
1	internal cable clamps	spring clamp terminals up to 1.5 mm^2
2		pole terminals 2.5 mm^2
3		screw terminals 2.5 mm^2
T1	degree of protection	IP 65 / IP 67 (standard)

MZ8120-A11	mounting set for device holder	2 mounting brackets for pipe and frame mounting Ø 30-50 mm, incl. nuts and washers
MZ8120-A12		2 mounting brackets for pipe and frame mounting Ø 40-64 mm, incl. nuts and washers
MC1020	HART-Modem	RS 232 -interface
MC1040		USB-interface
MC1041		USB-interface, Ex

Order code (example): CI4120 – A1056 – F1 – H21 – Y12 – T200 – K1085 - …

[1] Requires front cover of stainless steel
[2] for all nominal ranges except: -1...1 bar rel. bis -1...40 bar rel.
[3] only for the nominal ranges: -1...1 bar rel. bis -1...40 bar rel.